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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/767,986

01/29/2004

Lincoln Eramo

S63.2-11325-US01

5339

490 7590 07/17/2008
VIDAS, ARRETT & STEINKRAUS, P.A.
SUITE 400, 6640 SHADY OAK ROAD
EDEN PRAIRIE, MN 55344

EXAMINER

BERMAN, SUSAN W

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

07/17/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/767,986	Applicant(s) ERAMO, LINCOLN	
	Examiner /Susan W. Berman/	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 and 63-73 is/are pending in the application.
- 4a) Of the above claim(s) 14, 18-20, 38, 44-61, 63-70 and 73 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13, 15-17, 21-37, 39-43, 71 and 72 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-4, 6-9, 12, 13, 15, 16, 17, 22-24, 28-31, 35-37, 39, 40 and 42 are rejected under 35 U.S.C. 102(b) as anticipated by Saito et al (5,429,590). See the Abstract, column 2, lines 33-47, column 3, line 50, to column 4, line 46, and Example 14.

Claims 1-9, 12, 16, 17, 21-23, 27-32, 34-36 and 41-43 are rejected under 35 U.S.C. 102(b) as anticipated by Buscemi et al (5,693,034). Buscemi et al disclose a lubricious polymer network comprising the reaction product of a vinyl prepolymer and an uncrosslinked hydrogel retained within the reaction product so that the network exhibits greater lubricity when wet. The hydrogels disclosed include polyethylene oxide (column 2, lines 34-41). The vinyl monomers include glyceryl propoxy triacrylate, diacrylates such as di-, tri-, tetra- or polyethylene glycol di(meth)acrylates and neopentylglycol di(meth)acrylate, which is used in the examples (column 2, lines 56, to column 3, line 3). Isopropyl alcohol and water can be used as solvent (column 3, lines 4-11). A free radical initiator, such as azobisisobutyronitrile, is employed and curing can be by UV light exposure (column 3, lines 12-13 and lines 32-43). UV curing in the presence of azobisisobutyronitrile is taught in the examples. See Examples 1, 4 and 6. Buscemi et al specifically teach that alkoxyated di(meth)acrylates, such as triethylene glycol di(meth)acrylate, tetraethylene glycol di(meth)acrylate and polyethylene glycol di(meth)acrylate,

Art Unit: 1796

are equivalent to neopentyl glycol diacrylate in the disclosed compositions. The compositions taught by Buscemi et al comprising an alkoxyated di(meth)acrylate anticipate the instantly claimed compositions. With respect to claim 5, Buscemi et al teach glycerol propoxy triacrylate. With respect to claims 6-8, Buscemi et al teach di-, tri-, tetra- or poly-ethylene glycol di(meth)acrylates that fall within the claim recitation of moles alkoxyate.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 11, 13, 15, 24, 25, 33, 37, 39 and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buscemi et al (5,693,034), as applied to claims 1-9, 12, 16, 17, 21-23, 27-32, 34-36 and 41-43 above, and further in view of Bae et al (5,667,735). Buscemi et al disclose vinyl monomers such as glyceryl propoxy triacrylate, diacrylates such as di-, tri-, tetra- or poly-ethylene glycol di(meth)acrylates and neopentyl glycol diacrylate (column 2, lines 56, to column 3, line 3). A free radical initiator, such as azobisisobutyronitrile, is employed and curing can be by UV light exposure (column 3, lines 12-13 and lines 32-43).

Bae et al disclose coatings for ophthalmic devices. The compositions comprise polyacryloylated alkane polyols, alkoxyated alkane polyols having at least three acrylate groups, such as ethoxylated trimethylolpropane triacrylate, a photoinitiator and other additives (column 3, lines 37-57, and column 5, lines 19-42). The photoinitiators taught include Darocure 1173,

Art Unit: 1796

Irgacure 500 and Irgacure 907 (2-methyl-1-[4-(methylthio)phenyl]-2-morpholino-propanone-1) (column 5, lines 43-50). Additional photoinitiators, including azobisisobutyronitrile, are taught in column 11, lines 18-39.

With respect to claims 10, 11 and 33, It would have been obvious to one skilled in the art at the time of the invention to employ an alkoxyated alkane polyols having at least three acrylate groups, such as ethoxylated trimethylolpropane triacrylate taught by Bae et al, as the alkoxyated (meth)acrylate in the compositions disclosed by Buscemi et al. Buscemi et al provide motivation by teaching that vinyl monomers such as glyceryl propoxy triacrylate can be employed as well as the disclosed alkoxyated di(meth)acrylates. Bae et al provide motivation by using ethoxylated trimethylolpropane triacrylate in the examples in analogous compositions containing release agents and wetting agents. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing an effective crosslinking monomer in the compositions disclosed by Buscemi et al.

With respect to claims 24, 25 and 40, It would have been obvious to one skilled in the art at the time of the invention to employ one or more of the additives taught by Bae et al in analogous compositions in the compositions disclosed by Buscemi et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of modifying the composition as desired by addition of the conventional additives taught by Bae et al.

With respect to claims 13, 15, 37 and 39, It would have been obvious to one skilled in the art at the time of the invention to substitute any one of the photoinitiators corresponding to those set forth in instant claims 13, 15, 33 and 39, such as 2-methyl-1-[4-(methylthio)phenyl]-2-morpholino-propanone-1, disclosed by Bae et al for the azobisisobutyronitrile initiator in the UV

Art Unit: 1796

curable compositions disclosed by Buscemi et al. Buscemi et al provide motivation by disclosing that the disclosed composition are UV light curable. Bae et al provide motivation by disclosing various photoinitiators, including a morpholino propanone photoinitiator, useful for polymerizing alkoxyated (meth)acrylate monomers analogous to the polymerizable alkoxyated (meth)acrylate monomers taught by Buscemi et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of providing a suitable photoinitiator for the compositions disclosed by Buscemi et al.

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Buscemi et al (5,693,034) in view of Bae et al, as applied to claims 1-13, 15-17, 21-25, 27-37 and 39-43 above, and further in view of Wang et al (6,458,867). Buscemi et al disclose compositions comprising difunctional reactive diluents comprise alkoxyated (meth)acrylates (columns 2-3). Bae et al disclose analogous compositions and teach conventional additives, such as adhesion promoters, therefor.

Wang et al disclose hydrophilic lubricant coatings for medical devices. The hydrophilic coatings are obtained from a nonhydrophilic polymeric material converted to a carboxylic acid or alcohol (column 8, lines 47-52, and column 9, lines 20-67, and column 15, lines 13-34). Polyalkylene glycols are preferred. A crosslinkable primer composition comprising compounds having hydrophilic functionality, such as an amino silane, is taught (column 11, line 47, to column 12, line 28).

It would have been obvious to one skilled in the art at the time of the invention to include a compound such as the amino silane taught by Wang et al in the compositions disclosed by

Art Unit: 1796

Buscemi et al in order to take advantage of the coupling properties of the silane compound. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of improving the adhesion of the coating composition to the substrate being coated.

Claims 71 and 72 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buscemi et al (5,693,034) in view of Bae et al, as applied to claims 1-13, 15-17, 21-24, 27-37 and 39-41 above, and further in view of Kapoor et al (WO 03/046119). Neither Buscemi et al nor Bae et al teaches acrylated amine synergists employed with the photoinitiators in the disclosed compositions. Kapoor et al disclose radiation curable detergent compositions and teach using acrylated amine synergists to promote curing by generation of free radicals and by overcoming oxygen inhibition at the coating surface. See page 7, line 24, to page 8, line 11, page 11, line 19, to page 12, line 13, page 14, line 19, to page 15, line 30.

It would have been obvious to one skilled in the art at the time of the invention to include an acrylated amine synergist in the UV light curable composition comprising a free radical photoinitiator taught by Buscemi et al in combination with Bae et al. One skilled in the art at the time of the invention would have been motivated by a reasonable expectation of promoting curing by generation of free radicals and by overcoming oxygen inhibition at the coating surface, as taught by Kapoor et al.

Conclusion

Hubbell et al (5,573,934) is cited as art of interest. Hubbell et al teach PEG gel layers for medical grade silicone rubber. See Example 12 and Example 20.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to /Susan W. Berman/ whose telephone number is 571 272 1067. The examiner can normally be reached on M-F 9:30-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Seidleck can be reached on 571 272 1078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SB
7/15/2008

/Susan W Berman/
Primary Examiner
Art Unit 1796